

tions, differ *in toto*. How these differences have been brought about is beyond our comprehension; but when we do find them, they ought assuredly to be made known.

The three species of *Eutoxeres* above described are on a par with *Phaëthornis Guyi*, *P. Emilie*, and *P. yaruqui*, which every one now regards as distinct. Sufficiens has been said to point out the specific peculiarities of *E. aquila*, *E. heterura*, and *E. Salvini*; it is therefore unnecessary to give a description of the latter.

The species of the genus *Eutoxeres* now known are:—

Eutoxeres Condamini. Habitat Archidona in Eastern Ecuador.

—— *heterura*. Hab. Central Ecuador.

—— *aquila*. Hab. New Granada.

—— *Salvini*. Hab. Veragua and Costa Rica.

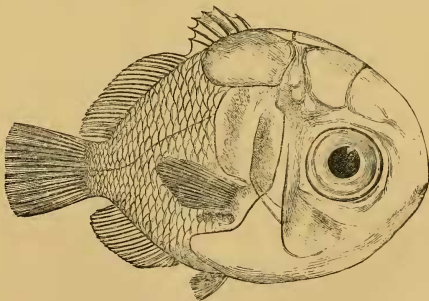
LIII.—*Additions to the Ichthyological Fauna of Zanzibar.*

By Dr. A. GÜNTHER, F.R.S.

DR. KIRK has lately sent a collection of Fishes from Zanzibar to the British Museum; it contained the following new forms (besides several others previously not known to exist on that coast, viz. *Dules Bennettii*, *Rhynchichthys pelamidis*, *Brama orcini*, *Eleotris madagascariensis*, *El. fusca*, *Chromis mossambica*, *Exocoëtus nigripinnis*):—

Tholichthys osseus.

I propose this name for a fish which, although young, is



(Six times the natural size.)

evidently the type of a new genus, and appears to belong to

the Scombroid group *Cyttina*. I am well aware that the young of numerous Scombroid and Carangoid fishes are provided with an armature of the head which disappears with age, and I have but little doubt that the appearance of this fish also is different in old individuals; but I do not think that the osseous plates behind the head disappear; and they will form the character by which the fish may be recognized at all ages. Having only a single example, 11 millims. long, I must omit the description of several characters, as the dentition, gills, &c.

Body compressed, suborbicular, the greatest depth being contained once and one-third in the length (without caudal); head enormous, the root of the ventral fin being considerably nearer to the base of the caudal than to the anterior profile of the head; eye very large, situated nearly in the middle of the depth of the head, and nearer to the end of the snout than to that of the operculum. Mouth extremely small, opposite to the lower part of the eye. The entire head is covered by bone; and several of the bones are much enlarged, so as to cover the anterior part of the trunk; there is an ovate suprascapular plate covering the back below the first dorsal fin, and a humeral plate between it and the ventral. Both these plates are attached to the skin of the body in their basal portion only. The præopercular angle is much dilated and produced backwards into a very large subtriangular process, which is rounded behind, extending nearly to the anal.

The remainder of the body is covered by scales, which are of moderate size and much deeper than long.

There are two dorsal fins; the first, composed of six spines (which are of moderate strength and short), is much less developed than the second, which is formed by twenty-two rays. Anal fin corresponding in size and position to the soft dorsal, with twenty rays. Caudal subtruncated. Pectoral moderately developed. Ventrals thoracic, with one spine and five rays.

Salarias Kirkii.

Allied to *Salarias tridactylus*.

D. $\frac{16}{22}$. A. 28.

The height of the body is rather less than the length of the head, which is nearly one-seventh of the total length (without caudal). The single specimen obtained has a triangular crest on the head, tapering into a point; a very small fringed tentacle above the orbit. The dorsal fin is slightly emarginate, the anterior dorsal spines being as long as the posterior rays; the

last dorsal ray connected by membrane with the root of the caudal. Canine teeth none.

Dark blackish olive, with scarcely a trace of lighter or darker bands on the body. Dorsal fin with very indistinct whitish oblique lines; anal fin with a broad black margin.

A single specimen, $3\frac{1}{2}$ inches long.

Exocætus melanopus.

D. 14. A. 13.

Mandible with a long black band-like appendage, bifid at the end and nearly extending to the end of the head. The height of the body is one-fourth of the total length (without caudal); the length of the head is contained thrice and three-fourths in it. Head nearly as deep as long, broad in its nuchal portion, and compressed in the rostral; snout obtuse and very short, one-half the length of the diameter of the eye, which is more than one-third of the length of the head. Pectoral fin extending beyond the root of the caudal. Root of the ventrals nearer to the end of the snout than to the base of the caudal; and they extend somewhat beyond the origin of the anal. The dorsal fin commences nearly opposite to the first anal ray. Trunk and tail with three blackish cross bands, the first corresponding to the space between ventrals and anal; pectoral uniform white, black at the base; ventrals deep black; caudal white.

One specimen, 2 inches long.

LIV.—On the Species of Helicidæ found in Japan.

By ARTHUR ADAMS, F.L.S.

THE following systematic list of inoperculate Pulmonifera which live upon the land contains notices of species collected by myself in Japan. It is doubtless very imperfect, because the interior of these beautiful islands has never yet been explored by naturalists. Newcombe (Proc. Cal. Acad. Nat. Sc. 1865) has described two species of *Helix* (*H. Blakeana* and *H. declivis*) and one species of *Succinea* (*S. japonica*) which I have not seen. Von Martens has made mention of *Helix* (*Ægista*) *Friedeliana* and *Stenogyra* (*Opeas*) *javanica*, Rve.; but I am not acquainted with either of these species. *Opeas juncea* of Gould has also been said to inhabit Japan; but I believe my *Opeas pyrgula* has been mistaken for that species. I obtained examples of *Helix* (*Plectotropis*) *Mackensii*, Val., at Cone Island, and specimens of *Helix* (*Plectotropis*) *ciliosa*,